

# Title: ACE Metric and Analysis: Focusing on Administrative Efficiency

Session: R-4-0900



# Overall Objectives

- Purpose of ACE
- Methodological Overview
- From Ratio to Score
- Analysis & Examples



# Session Objectives

- Understand the purpose of the ACE Metric
- Applicability of the Metric and Score to Air Force and Navy MTFs
- Know the data sources of the Metric
- Understand the Metric's calculation methodology
- Understand the Metric's scoring methodology
- Be able to interpret the ratio and the score
- Understand how to improve the Metric



# Terms and Concepts

- MEPRS Accounts
  - A : Inpatient
  - B : Ambulatory
  - C : Dental
  - D : Ancillary (D = ICU)
  - E : Administration
  - F : Special Programs
  - G: Readiness
- Step down



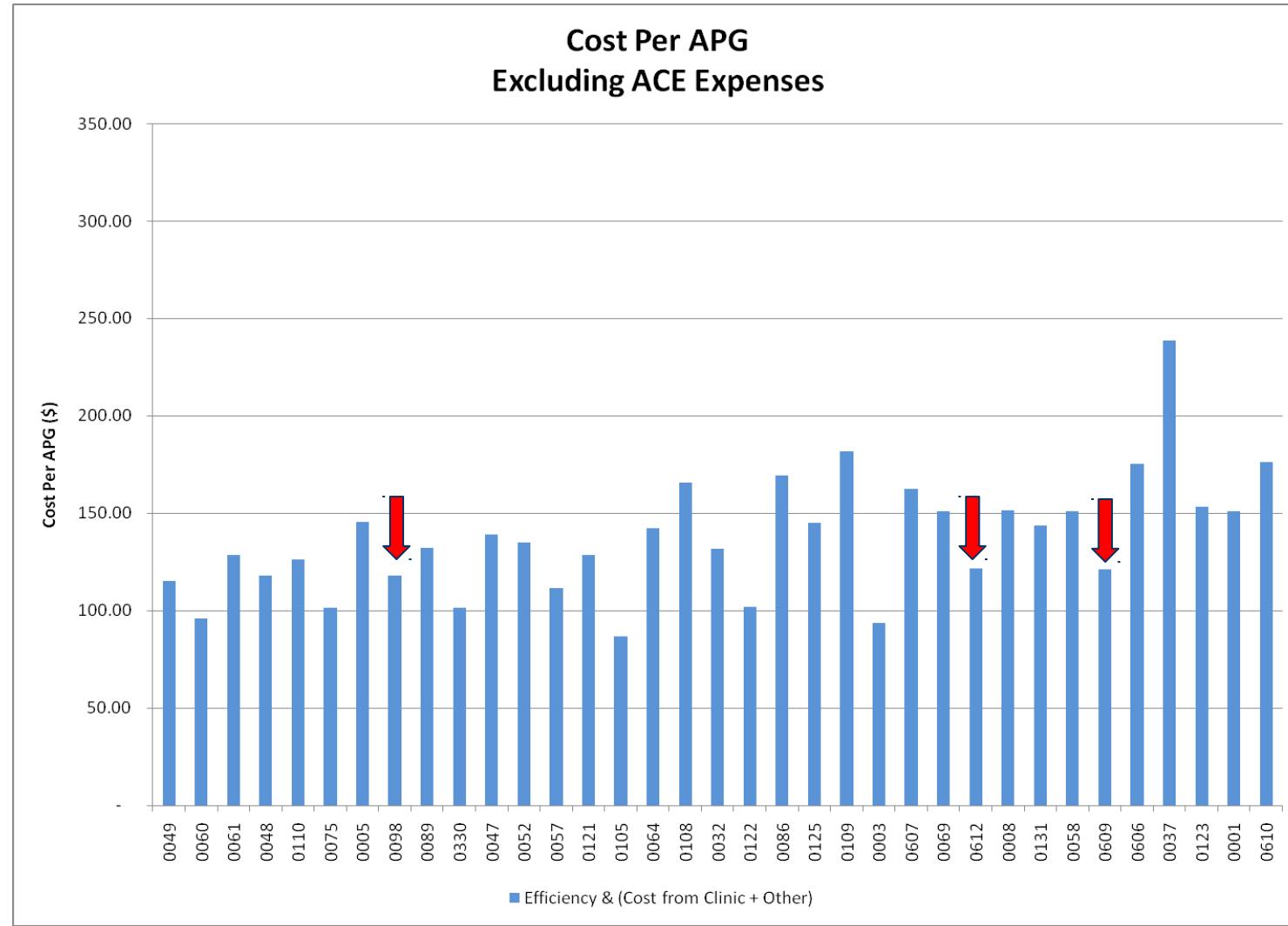
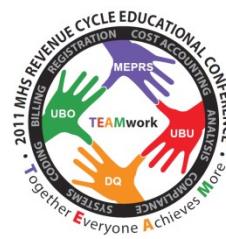
# Purpose of ACE

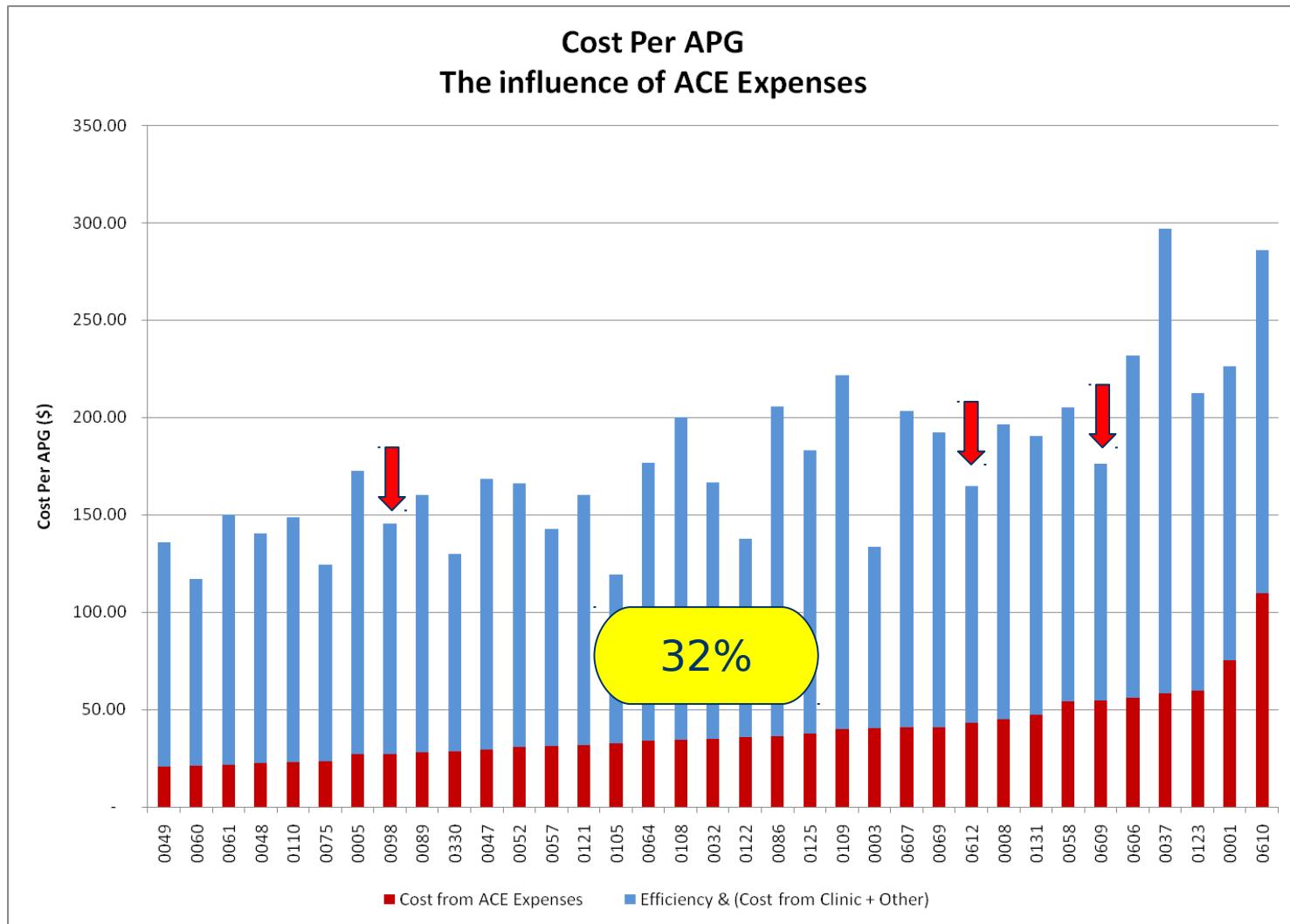
- Focus Army MEDCOM managerial and leadership effort on administrative efficiency
- Why?
  - Healthcare requires substantial administrative support
  - MEDCOM spends more than 38 cents per dollar of healthcare value supported
  - Some MTFs spend more than one dollar in admin per dollar of healthcare value
  - It is one of the main reasons for the cost differential between the Purchased Care and Direct Care subsystems
  - Efficiency enables effectiveness and outcomes



# ACE / Cost Per APG / PMPM

Parent DMIS ID	Parent DMIS ID Name	APG Wkld	ACE Ratio	PMRM Productivity	Cost per APG	Notes
0330	GUTHRIE AHC-FT. DRUM	343,421	0.64	181,769	\$ 117.00	?
0075	L. WOOD ACH-FT. LEONARD WOOD	560,792	0.30	306,003	\$ 118.88	
0060	BLANCHFIELD ACH-FT. CAMPBELL	965,975	0.27	254,957	\$ 120.03	
0105	MONCRIEF ACH-FT. JACKSON	605,127	0.62	267,761	\$ 122.34	
0057	IRWIN ACH-FT. RILEY	495,553	0.38	212,529	\$ 128.15	
0003	LYSTER AHC-FT. RUCKER	167,467	0.90	223,577	\$ 130.78	
0049	WINN ACH-FT. STEWART	674,904	0.31	238,639	\$ 132.95	
0122	KENNER AHC-FT. LEE	226,141	0.64	257,929	\$ 133.06	
0048	MARTIN ACH-FT. BENNING	878,348	0.31	248,307	\$ 133.07	
0098	REYNOLDS ACH-FT. SILL	571,153	0.35	246,533	\$ 137.41	
0110	DARNALL AMC-FT. HOOD	1,334,555	0.30	210,476	\$ 140.68	
0061	IRELAND ACH-FT. KNOX	615,614	0.39	186,838	\$ 145.12	
0089	WOMACK AMC-FT. BRAGG	1,438,384	0.35	233,422	\$ 149.31	
0005	BASSETT ACH-FT. WAINWRIGHT	274,186	0.34	202,020	\$ 149.80	
0032	EVANS ACH-FT. CARSON	895,259	0.37	236,798	\$ 151.21	
0121	MCDONALD AHC-FT. EUSTIS	338,497	0.62	262,817	\$ 152.04	
0052	TRIPLER AMC-FT SHAFTER	1,425,013	0.31	233,048	\$ 159.09	
0125	MADIGAN AMC-FT. LEWIS	1,767,641	0.34	248,306	\$ 162.56	
0047	EISENHOWER AMC-FT. GORDON	995,127	0.35	251,831	\$ 163.27	
0064	BAYNE-JONES ACH-FT. POLK	276,792	0.44	254,037	\$ 170.64	
0609	WUERZBURG MEDDAC	317,895	1.13	163,508	\$ 171.45	
0086	KELLER ACH-WEST POINT	271,311	0.44	203,186	\$ 174.74	
0131	WEED ACH-FT. IRWIN	129,605	0.45	199,270	\$ 176.72	
0058	MUNSON AHC-FT. LEAVENWORTH	158,883	1.05	209,429	\$ 186.80	
0108	WILLIAM BEAUMONT AMC-FT. BLISS	841,561	0.37	198,268	\$ 187.60	
0123	DEWITT ACH-FT. BELVOIR	799,318	0.73	266,191	\$ 192.94	Efficient Clinic + High ACE = High Cost Per
0069	KIMBROUGH AMB CAR CEN-FT MEADE	402,422	0.73	262,788	\$ 195.98	Efficient Clinic + High ACE = High Cost Per
0008	R W BLISS AHC-FT. HUACHUCA	145,102	0.92	175,655	\$ 196.76	
0607	LANDSTUHL REGIONAL MEDCEN	686,780	0.42	178,569	\$ 211.34	
0109	BROOKE AMC-FT. SAM HOUSTON	1,188,494	0.31	189,959	\$ 213.34	Efficient Admin + Inefficient Clinic = High Cost
0001	FOX AHC-REDSTONE ARSENAL	87,089	1.29	267,138	\$ 215.72	Efficient Clinic + High ACE = High Cost Per
0037	WALTER REED AMC-WASHINGTON DC	1,284,955	0.54	126,209	\$ 280.02	
0610	BG CRAWFORD SAMS AHC-CAMP ZAMA	24,174	1.78	197,381	\$ 372.04	







# Derivative Purposes

---

- Importance of MEPRS
- Data Quality Feedback



# TRI-SERVICE Application

- Ratio
- Scoring & Comparative Analysis



# Methodology



# Methodological Overview

- The ACE Metric is the proportion of Administrative Costs (MEPRS E Accounts, with some exclusions) applicable to the value of healthcare created by Inpatient and Outpatient operations (MEPRS A & B Accounts).
  - In the future it will include the expenses and healthcare value from Ancillary Services & Dental
- Exclusions: Depreciation, Free Receipts, Med-Dental-Rx Supplies and Equipment, Utilities, Construction (EDC/EDD)
- For each MTF the metric will be expressed as
  - A ratio; e.g., 0.42
  - An academic numeric score ( 0-100)
    - Based on a non-linear regression model where achieving the expected value earns a score of 70
    - Score is a component of the MAPR (MTF Admin Progress Report)



EAS IV REPOSITORY

**ACE EXPENSES**



M2 – Direct Care – SADR  
M2 - Direct Care - SIDR

**ACE REVENUE**



# ACE Expenses

	Landstuhl	Heidelberg	Bavaria	ERMC
Total "E" Direct Expenses	133,942,762	41,233,508	46,627,031	221,803,301
Excluded SEECs	33,131,836	12,124,920	12,511,232	57,767,988
Not Excluded but Steps to C, D, F, or G	47,632,232	15,221,895	12,997,087	75,851,214
Facilities Sustainment, Renovation & Modernization (SRM) for A & B	2,696,044	264,059	1,590,589	4,550,692
ACE Expenses supporting A & B	50,482,651	13,622,633	19,528,122	83,633,406
Proportion ACE to all "E"	38%	33%	42%	38%

Landstuhl	Heidelberg	Bavaria	ERMC
133,942,762	41,233,508	46,627,031	221,803,301
33,131,836	12,124,920	12,511,232	57,767,988
47,632,232	15,221,895	12,997,087	75,851,214
2,696,044	264,059	1,590,589	4,550,692
50,482,651	13,622,633	19,528,122	83,633,406
38%	33%	42%	38%



# Bring in the Revenue

	Landstuhl	Heidelberg	Bavaria	ERMC
Total "E" Direct Expenses	133,942,762	41,233,508	46,627,031	221,803,301
Excluded SEECs	33,131,836	12,124,920	12,511,232	57,767,988
Not Excluded but Steps to C, D, F, or G	47,632,232	15,221,895	12,997,087	75,851,214
Facilities Sustainment , Renovation & Modernization (SRM) for A & B	2,696,044	264,059	1,590,589	4,550,692
ACE Expenses supporting A & B	50,482,651	13,622,633	19,528,122	83,633,406
Proportion ACE to all "E"	38%	33%	42%	38%
Economic Value of Healthcare Supporting		120,978,286	12,514,267	17,430,152
ACE Ratio	0.42	1.09	1.12	0.55

Landstuhl	Heidelberg	Bavaria	ERMC
133,942,762	41,233,508	46,627,031	221,803,301
33,131,836	12,124,920	12,511,232	57,767,988
47,632,232	15,221,895	12,997,087	75,851,214
2,696,044	264,059	1,590,589	4,550,692
50,482,651	13,622,633	19,528,122	83,633,406
38%	33%	42%	38%
Economic Value of Healthcare Supporting		120,978,286	12,514,267
ACE Ratio	0.42	1.09	1.12
			0.55



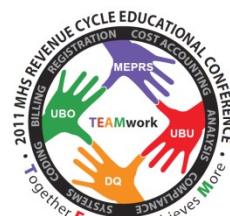
# Admin Cost Efficiency in Relation to Revenue Output

## Planned Evolution

- $\dot{n}_{\$ER} = (X_{EA} + X_{EB}) / (R_A + R_B)$
- $\dot{n}_{\$ER} = (X_{EA} + X_{EB} + X_{ED} +) / (R_A + R_B + R_D)$
- $\dot{n}_{\$ER} = (X_{EA} + X_{EB} + X_{EC} + X_{ED}) / (R_A + R_B + R_c + R_D)$
- $\dot{n}_{\$ER} = (X_{EA} + X_{EB} + X_{EC} + X_{ED} + X_{EF} + X_{EG}) / (R_A + R_B + R_c + R_D + R_F + R_G)$

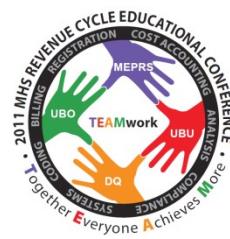
- $\eta_{\$ER}$  : Efficiency of E Account Costs with respect to the supported revenue
- $X_{EA}, X_{EB}, X_{EC}, X_{ED}, X_{EF}, X_{EG}$  : Expenses (-) Allocated from the E Account to the FCC1
- $R_A, R_B, R_C, R_D, R_E, R_G$  : Revenue from the FCC1

seecdesc	BAVARIA MEDDAC	HEIDELBERG MEDDAC	LANDSTUHL REGIONAL MEDCEN	ERMC
BORROWED - FOREIGN NATIONAL MIL LABOR			61,613	61,613
BORROWED MIL LABOR	88,176		3,073,704	3,161,880
CIVILIAN PCS TRAVEL	48,313	4,010	138,807	191,130
CIVILIAN PERSONNEL COMP	6,091,570	3,579,901	11,862,611	21,534,082
COMMUNICATION		55,163	690,112	745,275
EDUCATION & TRAINING	14	2,561	14,029	16,605
FOREIGN NATIONAL CIV -DIRECT HIRE	4,576,508	3,602,042	7,403,622	15,582,172
FUELS		146	2,554	2,700
INFO PROCESSING EQUIP		53,538		53,538
INTEREST AND DIVIDENDS	71	846	2,062	2,980
LANDS & STRUCTURES	935,707	22,277	474,895	1,432,879
MILITARY PERSONNEL COMPENSATION	5,637,913	4,442,596	14,246,324	24,326,833
OTHER EQUIPMENT	248,787	200,321	1,270,030	1,719,139
OTHER MIS CONT	254,058	22,582	401,263	677,903
OTHER SUPPLIES	184,873	364,789	1,435,558	1,985,220
PRINTING & REPRODUCTION	23,705	108,850	34,231	166,786
PURCHASE MAINT EQUIPMENT	9,432	41,263	1,884,675	1,935,370
READINESS LABOR	52,860	164,146	1,403,248	1,620,253
RECURRING REAL PROPERTY MAINT	763,148	807,451	2,977,933	4,548,532
RENTAL PAYMENTS	24,271	26,531	130,993	181,795
RESERVES PERSONNEL COMPENSATION	2,590	3,380	1,644,187	1,650,157
TRANSPORTATION OF THINGS	10,134	11,334	31,105	52,574
TRAVEL & TRANSPORT OF PERSONS	575,992	108,906	1,299,094	1,983,992
ERMC	19,528,122	13,622,633	50,482,651	83,633,406



# Providing FCC3

pfcc3desc	BAVARIA MEDDAC	HEIDELBERG MEDDAC	LANDSTUHL REGIONAL MEDCEN	ERMC
ADMINISTRATION	6,925,581	2,387,723	7,055,002	16,368,306
AMBULATORY CARE PATIENT ADMINISTRATION	5,674,004	3,438,277	5,239,506	14,351,787
TRICARE/MANAGED CARE ADMINISTRATION	3,615,899	3,260,052	4,880,711	11,756,663
CLINICAL MANAGEMENT	21,330	1,006,249	10,535,901	11,563,479
COMMAND	797,024	1,061,125	5,826,035	7,684,184
INPATIENT ADMINISTRATION			5,196,625	5,196,625
SERVICE MEDICAL IM/IT	560,529	582,019	2,149,673	3,292,221
PATIENT FOOD OPERATIONS			3,082,520	3,082,520
SPECIAL STAFF	410,998	476,465	1,954,388	2,841,851
EDUCATION & TRAINING PROGRAM SUPPORT	634,686	241,021	1,218,308	2,094,015
BIOMEDICAL EQUIP REPAIR	410,001	362,870	1,208,221	1,981,092
MATERIEL MANAGEMENT SERVICES	206,202	453,326	524,254	1,183,781
HOUSEKEEPING	152,227	184,990	486,612	823,829
COMMUNICATIONS	42,684	30,771	440,555	514,010
REAL PROPERTY MANAGEMENT	59,111	82,482	288,280	429,873
OTHER BASE SUPPORT SERVICES	16,013	8,638	165,644	190,295
LAUNDRY SERVICE	1,835	33,864	127,288	162,986
THIRD PARTY COLLECTION ADMINISTRATION		12,762	68,471	81,233
TRANSPORTATION			34,657	34,657
ERMC	19,528,122	13,622,633	50,482,651	83,633,406



# From Ratio to Score



# Focus Area 5-C : The MAPR

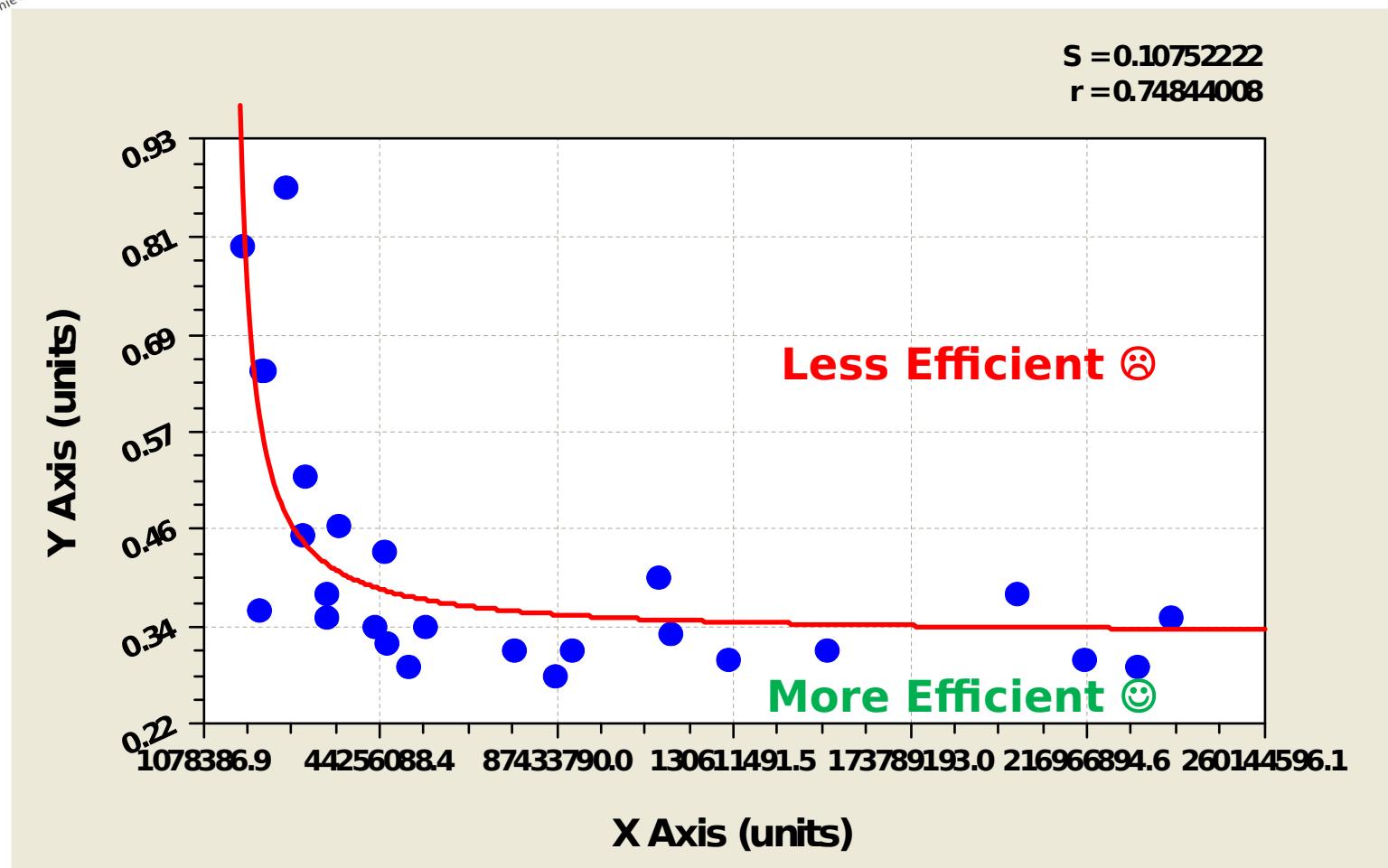
## 1) MAPR Projections:

MTF Administrative Progress Report (MAPR)	Target	Current	FY11	FY12	FY13
<b>Patient Satisfaction</b>					
Satisfaction with Telephone Access	85.50%				
Satisfaction with Time from Scheduling to Appt	85.00%				
Satisfaction with Staff	85.00%				
<b>Data Quality</b>					
SIDR Timeliness	99.60%				
SADR Timeliness	98.76%				
Coding Accuracy (CARA): E&M	90.00%				
Coding Accuracy (CARA): CPT	90.00%				
Coding Accuracy (CARA): ICD9	90.00%				
MEPRS: Percent of Facilities Reporting	100.00%				
<b>Access to Care</b>					
Booking Success Rate	75.00%				
3rd Next Available Appointment (Acute)	80.00%				
3rd Next Available Appointment (Routine)	80.00%				
Patient Appointments with PCM	70.00%				
TOL Appts Booked Online (Primary Care)	3.00%				
Percent of In-Room to Staffed OR Time (NBD)	70.00%				
<b>Financial</b>					
Administrative Cost Efficiency (ACE)	90.00%				
<b>Logistics/Facilities</b>					
Satisfaction with Comfort	85.50%				
Satisfaction with Convenience	85.50%				
<b>Warrior and Family</b>					
30 Day MEB Processing Standard	80.00%				

ACE



# ACE Ratio to Revenue



Y Axis : ACE Ratio, X Axis: Revenue

FY2008 Data at PDMIS

Below the line is desirable

This graph is from early data and the regression formula continues to be refined



# ACE Ratio

dp	pdmis	pdmisname	sp1exp	rev	ratio	goal	score3	grade
201003	0125	MADIGAN AMC-FT. LEWIS	\$ 81,242,644	\$ 250,726,081	0.32	0.33	0.71	C
201003	0052	TRIPLER AMC-FT SHAFTER	\$ 74,388,566	\$ 239,880,597	0.31	0.33	0.73	C
201003	0109	BROOKE AMC-FT. SAM HOUSTON	\$ 61,751,935	\$ 207,242,255	0.30	0.33	0.74	C
201003	0037	WALTER REED AMC-WASHINGTON DC	\$ 109,059,271	\$ 192,580,874	0.57	0.33	0.50	F
201003	0089	WOMACK AMC-FT. BRAGG	\$ 51,735,737	\$ 148,853,077	0.35	0.34	0.69	D
201003	0110	DARNALL AMC-FT. HOOD	\$ 40,237,042	\$ 130,965,428	0.31	0.34	0.74	C
201003	0108	WILLIAM BEAUMONT AMC-FT. BLISS	\$ 45,807,907	\$ 117,937,025	0.39	0.34	0.64	D
201003	0067	LANDSTUHL REGIONAL MEDCEN	\$ 47,191,242	\$ 115,917,107	0.41	0.38	0.66	D
201003	0047	EISENHOWER AMC-FT. GORDON	\$ 41,672,028	\$ 115,723,846	0.36	0.34	0.68	D
201003	0032	EVANS ACH-FT. CARSON	\$ 39,309,061	\$ 101,896,350	0.39	0.35	0.65	D
201003	0060	BLANCHFIELD ACH-FT. CAMPBELL	\$ 26,678,115	\$ 98,831,156	0.27	0.35	0.79	C
201003	0048	MARTIN ACH-FT. BENNING	\$ 23,338,822	\$ 77,988,851	0.30	0.35	0.77	C
201003	0123	DEWITT ACH-FT. BELVOIR	\$ 52,842,997	\$ 73,830,259	0.72	0.35	0.50	F
201003	0049	WINN ACH-FT. STEWART	\$ 20,065,784	\$ 63,975,562	0.31	0.36	0.76	C
201003	0075	L WOOD ACH-FT. LEONARD WOOD	\$ 15,664,579	\$ 53,793,730	0.29	0.37	0.80	B
201003	0098	REYNOLDS ACH-FT. SILL	\$ 17,068,028	\$ 50,045,234	0.34	0.37	0.74	C
201003	0061	IRELAND ACH-FT. KNOX	\$ 18,727,647	\$ 45,680,430	0.41	0.38	0.66	D
201003	0057	IRWIN ACH-FT. RILEY	\$ 16,859,256	\$ 44,909,497	0.38	0.38	0.70	C
201003	0105	MONCRIEF ACH-FT. JACKSON	\$ 19,081,922	\$ 35,276,160	0.54	0.40	0.52	F
201003	0612	121st CSH-SEOUL	\$ 17,055,319	\$ 33,557,382	0.51	0.40	0.57	F
201003	0005	BASSETT ACH-FT. WAINWRIGHT	\$ 10,437,972	\$ 30,109,340	0.35	0.41	0.78	C
201003	0064	BAYNE-JONES ACH-FT. POLK	\$ 12,500,476	\$ 29,325,265	0.43	0.42	0.69	D
201003	0086	KELLER ACH-WEST POINT	\$ 12,048,953	\$ 26,879,639	0.45	0.43	0.68	D
201003	0069	KIMBROUGH AMB CAR CEN-FT MEADE	\$ 15,733,631	\$ 22,271,119	0.71	0.46	0.50	F
201003	0121	MCDONALD AHC-FT. EUSTIS	\$ 11,566,616	\$ 17,730,461	0.65	0.52	0.53	F
201003	0609	BAVARIA MEDDAC	\$ 18,499,136	\$ 16,522,954	1.12	0.97	0.51	F
201003	0330	GUTHRIE AHC-FT. DRUM	\$ 10,507,682	\$ 15,713,026	0.67	0.56	0.56	F
201003	0131	WEED ACH-FT. IRWIN	\$ 6,194,294	\$ 14,848,232	0.42	0.59	0.91	A
201003	0122	KENNER AHC-FT. LEE	\$ 8,102,054	\$ 12,513,544	0.65	0.69	0.75	C
201003	0606	HEIDELBERG MEDDAC	\$ 13,225,536	\$ 12,099,321	1.09	0.97	0.54	F
201003	0058	MUNSON AHC-FT. LEAVENWORTH	\$ 7,846,982	\$ 8,228,651	0.95	0.97	0.72	C
201003	0008	R W BLISS AHC-FT. HUACHUCA	\$ 7,686,486	\$ 8,223,169	0.93	0.97	0.74	C
201003	0003	LYSTER AHC-FT. RUCKER	\$ 6,997,930	\$ 7,616,139	0.92	0.97	0.76	C
201003	0001	FOX AHC-REDSTONE ARSENAL	\$ 6,450,789	\$ 5,004,689	1.29	0.97	0.50	F
201003	0610	BG CRAWFORD SAMS AHC-CAMP ZAMA	\$ 2,448,294	\$ 1,463,610	1.67	0.97	0.50	F



# ACE Ratio

pdmisname	spsexp	rev	ratio	goal	score3	grade
MADIGAN AMC-FT. LEWIS	\$ 81,242,644	\$ 250,726,081	0.32	0.33	0.71	C
TRIPLEX AMC-FT SHAFTER	\$ 74,388,566	\$ 239,880,597	0.31	0.33	0.73	C
BROOKE AMC-FT. SAM HOUSTON	\$ 61,751,935	\$ 207,242,255	0.30	0.33	0.74	C
WALTER REED AMC-WASHINGTON DC	\$ 109,059,271	\$ 192,580,874	0.57	0.33	0.50	F
WOMACK AMC-FT. BRAGG	\$ 51,735,737	\$ 148,853,077	0.35	0.34	0.69	D
DARNALL AMC-FT. HOOD	\$ 40,237,042	\$ 130,965,428	0.31	0.34	0.74	C
WILLIAM BEAUMONT AMC-FT. BLISS	\$ 45,807,907	\$ 117,937,025	0.39	0.34	0.64	D
LANDSTUHL REGIONAL MEDCEN	\$ 47,191,242	\$ 115,917,107	0.41	0.38	0.66	D
EISENHOWER AMC-FT. GORDON	\$ 41,672,028	\$ 115,723,846	0.36	0.34	0.68	D

Landstuhl can spend approximately \$4.6 Million more in ACE Expenses than EAMC and get the same score though they have essentially the same revenue.

WHY?



# WRMC Administrative Cost Efficiency

## RATIO

(Admin Expenses : Production Value Supported)

(Lower is Better. Each MTF has its own grade thresholds)

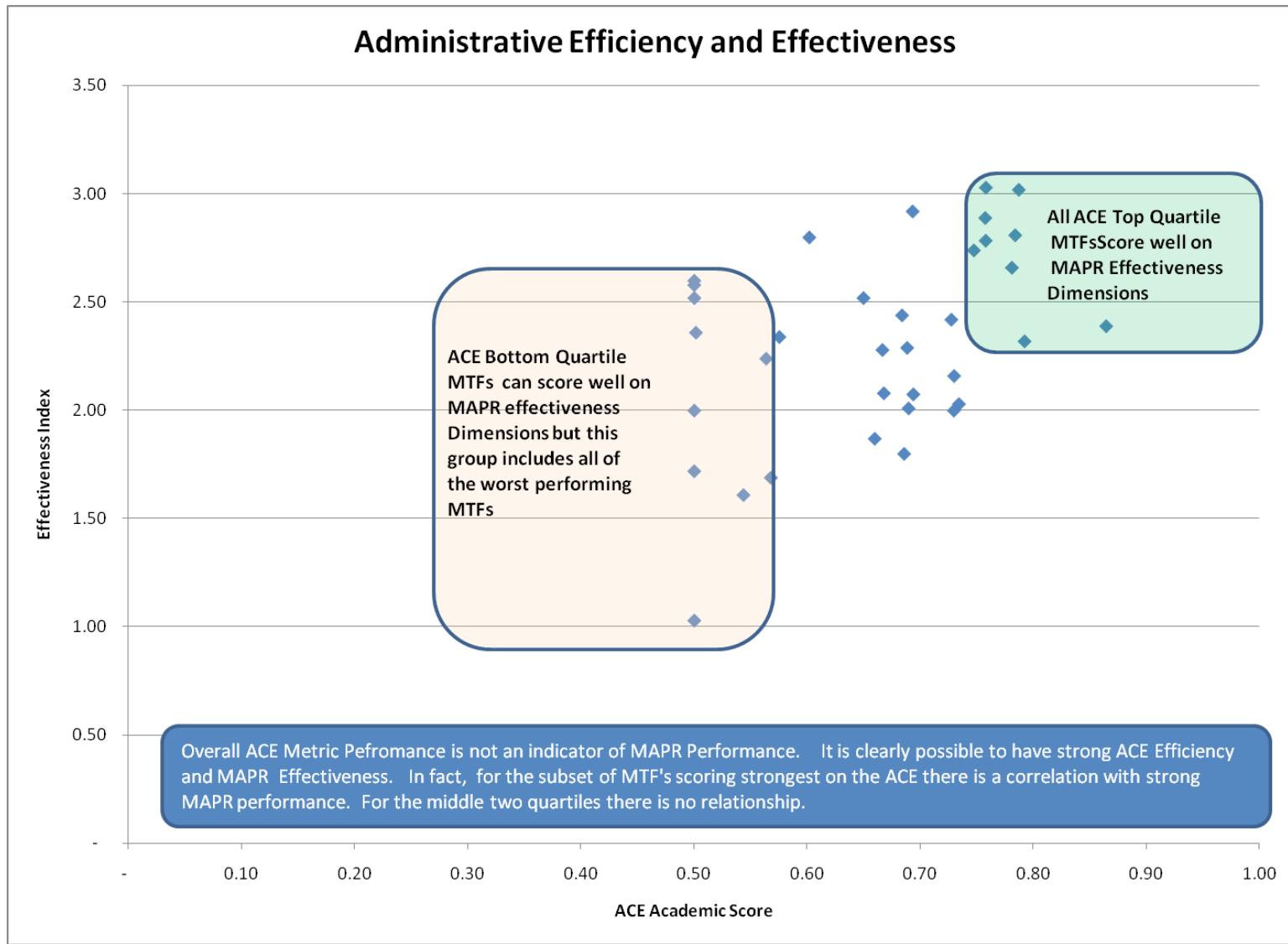
Parent MTF	Ratio Threshold (Ratio below threshold = Grade)													
	D	C	B	A										
BASSETT ACH-FT, WAINWRIGHT	0.37	0.38	0.37	0.39	0.37	0.38	0.36	0.38	0.37	0.35	0.35	0.34	0.34	0.33
R W BLISS AHC-FT, HUACHUCA	1.04	1.01	0.99	0.99	0.97	0.97	1.08	1.08	1.05	0.93	0.91	0.92	0.91	0.90
EVANS ACH-FT, CARSON	0.32	0.33	0.33	0.35	0.36	0.36	0.37	0.42	0.42	0.39	0.38	0.37	0.37	0.37
IRWIN ACH-FT, RILEY	0.32	0.33	0.33	0.34	0.35	0.36	0.38	0.37	0.38	0.38	0.38	0.38	0.39	0.40
MUNSON AHC-FT, LEAVENWORTH	0.84	0.91	0.90	0.92	0.92	0.95	0.98	0.99	0.96	0.95	0.97	1.05	1.06	1.06
L. WOOD ACH-FT, LEONARD WOOD	0.27	0.27	0.27	0.27	0.27	0.28	0.27	0.31	0.30	0.29	0.29	0.30	0.31	0.31
WILLIAM BEAUMONT AMC-FT, BLISS	0.35	0.34	0.34	0.35	0.35	0.37	0.36	0.35	0.40	0.39	0.37	0.37	0.38	0.39
MADIGAN AMC-FT, LEWIS	0.33	0.33	0.32	0.33	0.32	0.32	0.32	0.34	0.36	0.32	0.32	0.34	0.35	0.34
WEED ACH-FT, IRWIN	0.36	0.37	0.37	0.38	0.38	0.38	0.39	0.41	0.42	0.42	0.44	0.45	0.47	0.49

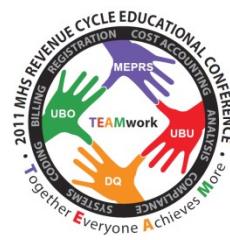
## Grade (MAPR)

Parent MTF	200906	200907	200908	200909	200910	200911	200912	201001	201002	201003	201004	201005	201006	201007
BASSETT ACH-FT, WAINWRIGHT	C	C	C	C	C	C	C	C	C	B	B	B	B	B
R W BLISS AHC-FT, HUACHUCA	D	C	C	C	C	C	C	C	C	C	B	C	B	B
EVANS ACH-FT, CARSON	C	C	C	C	C	C	C	D	D	C	C	C	C	C
IRWIN ACH-FT, RILEY	B	B	B	C	C	C	C	C	C	C	C	C	C	C
MUNSON AHC-FT, LEAVENWORTH	B	B	B	B	B	C	C	C	C	C	C	D	D	D
L. WOOD ACH-FT, LEONARD WOOD	B	B	B	B	B	B	B	B	B	B	B	B	B	B
WILLIAM BEAUMONT AMC-FT, BLISS	C	C	C	C	C	C	C	C	D	C	C	C	C	C
MADIGAN AMC-FT, LEWIS	C	C	C	C	C	C	C	C	C	C	C	C	C	C
WEED ACH-FT, IRWIN	A	A	A	A	A	A	A	A	A	A	B	B	B	B



# Tradeoffs Between Efficiency and Effectiveness





# Analysis and Examples

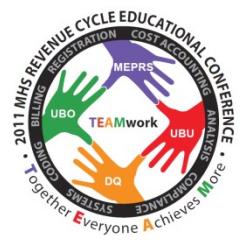
# A Common Pattern

Period	ACE - EXPENSE	ACE - REVENUE	Ratio
200812	15,313,583	45,049,407	0.34
200901	15,504,683	45,321,179	0.34
200902	15,646,944	45,659,493	0.34
200903	16,122,650	45,697,332	0.35
200904	16,328,655	45,286,317	0.36
200905	17,618,243	45,151,371	0.39
200906	16,358,329	45,442,519	0.36
200907	16,392,504	45,496,102	0.36
200908	15,257,432	45,226,788	0.34
200909	17,209,377	45,137,113	0.38
200910	17,238,370	44,856,343	0.38
200911	17,673,789	45,128,649	0.39
200912	18,193,896	45,084,081	0.40
201001	18,524,762	44,524,515	0.42
201002	18,874,351	43,973,156	0.43
201003	18,727,647	45,680,430	0.41



# Fort Huachuca

DP	Values		
DP	Sum of Exp	Sum of Rev	Sum of ratio
200906	7,118,022.95	6,855,586.32	1.04
200907	7,049,202.68	6,955,399.66	1.01
200908	7,049,763.59	7,098,558.42	0.99
200909	7,187,224.94	7,271,098.28	0.99
200910	7,167,712.35	7,357,439.17	0.97
200911	7,270,972.50	7,486,242.78	0.97
200912	8,238,500.16	7,645,470.54	1.08
201001	8,489,721.60	7,854,081.46	1.08
201002	8,517,671.83	8,085,641.16	1.05
201003	7,686,485.83	8,223,169.38	0.93
201004	7,661,507.74	8,384,017.27	0.91
201005	7,930,016.65	8,594,892.35	0.92
201006	7,921,700.36	8,748,883.35	0.91
201007	7,879,741.04	8,796,441.10	0.90
201008	8,203,819.66	8,770,714.29	0.94
201009	8,505,698.87	8,735,300.74	0.97
201010	8,423,893.83	8,663,393.88	0.97



# Fort Lee

	Values		
DP	Sum of Exp	Sum of Rev	Sum of ratio
200906	7,235,473.23	10,872,412.38	0.67
200907	7,431,113.36	10,910,049.33	0.68
200908	7,178,969.69	11,031,661.66	0.65
200909	7,238,928.39	11,266,174.73	0.64
200910	7,191,527.32	11,409,862.72	0.63
200911	7,411,108.62	11,606,912.23	0.64
200912	7,474,089.14	11,751,485.63	0.64
201001	7,760,600.37	12,046,980.03	0.64
201002	7,931,577.92	12,297,275.86	0.64
201003	8,102,053.86	12,513,543.92	0.65
201004	8,103,839.20	12,847,349.87	0.63
201005	8,263,953.90	12,902,253.75	0.64
201006	8,386,656.73	13,124,512.95	0.64
201007	8,482,654.44	13,241,836.16	0.64
201008	8,672,415.02	13,271,533.38	0.65
201009	8,774,386.01	13,376,204.56	0.66
201010	8,496,754.28	13,538,492.89	0.63



# Bavaria

	Values		
DP	Sum of Exp	Sum of Rev	Sum of ratio
200906	17,315,726.95	15,091,520.83	1.15
200907	17,344,842.64	15,160,017.93	1.14
200908	17,458,157.24	15,276,614.37	1.14
200909	17,644,003.19	15,499,971.89	1.14
200910	17,884,373.17	15,611,013.57	1.15
200911	17,845,388.69	15,769,281.49	1.13
200912	18,177,488.58	15,757,345.05	1.15
201001	18,014,359.80	15,760,662.71	1.14
201002	17,914,298.44	16,247,480.31	1.10
201003	18,499,136.33	16,522,954.44	1.12
201004	18,719,269.11	16,741,672.03	1.12
201005	19,129,577.03	16,960,505.72	1.13
201006	19,528,123.87	17,430,151.57	1.12
201007	19,658,090.96	17,652,213.28	1.11
201008	19,736,220.48	17,845,603.28	1.11
201009	19,893,544.09	18,132,510.76	1.10
201010	20,270,960.60	18,392,940.98	1.10



# Heidelberg

		Values		
DP	▼	Sum of Exp	Sum of Rev	Sum of ratio
200906		14,354,587.91	13,373,212.96	1.07
200907		14,065,857.07	12,573,276.45	1.12
200908		13,677,536.43	11,990,807.12	1.14
200909		13,557,626.37	11,965,036.70	1.13
200910		13,261,404.00	12,018,073.06	1.10
200911		13,121,339.28	12,056,262.86	1.09
200912		12,961,788.05	11,958,744.39	1.08
201001		12,991,384.46	11,884,976.68	1.09
201002		13,091,901.18	12,052,438.05	1.09
201003		13,225,536.09	12,099,321.30	1.09
201004		13,206,190.69	12,158,345.68	1.09
201005		13,451,968.60	12,293,444.51	1.09
201006		13,622,636.64	12,514,267.14	1.09
201007		13,719,926.25	12,643,869.45	1.09
201008		13,749,186.72	12,614,588.07	1.09
201009		13,753,898.79	12,643,167.76	1.09
201010		13,879,782.88	12,780,270.67	1.09

# Landstuhl

		Values		
DP	Sum of Exp	Sum of Rev	Sum of ratio	
200906	42,907,604.52	103,598,783.25	0.41	
200907	41,245,784.61	103,931,991.18	0.40	
200908	39,296,429.47	105,501,864.19	0.37	
200909	39,327,379.46	106,602,085.18	0.37	
200910	40,358,744.17	106,709,109.56	0.38	
200911	42,266,103.23	108,225,513.87	0.39	
200912	43,101,433.02	110,694,485.00	0.39	
201001	44,894,718.52	112,853,346.55	0.40	
201002	46,409,825.96	115,351,288.43	0.40	
201003	47,191,241.97	115,917,106.98	0.41	
201004	48,274,892.16	117,421,932.08	0.41	
201005	49,226,422.70	118,438,193.46	0.42	
201006	50,482,681.54	120,978,286.39	0.42	
201007	51,954,049.13	122,957,988.67	0.42	
201008	52,522,231.53	123,828,947.63	0.42	
201009	54,020,795.37	125,651,894.77	0.43	
201010	55,333,372.00	127,989,593.70	0.43	



# Improving ACE

$$\bullet \bar{\eta}_{\$ER} = (X_{EA} + X_{EB}) / (R_A + R_B)$$

- Make the numerator smaller
- Make the denominator larger



# Adjusting the Numerator

- **WARNING:** The goal is ACCURACY not accounting tricks!
- Change Actual Expenses
- Improve Accounting Accuracy



# What Impact

- MTF is improperly accounting for RN time into E Accounts?
- Crazy 8's for Personnel Assigned to E Account Work Centers



# ACE Ratio Calculator

ACE RATIO CALCULATOR				
Version 1.0				
	CURRENT	Predicted Change in %	Plan A "Based on Predicted % Change"	Plan B - "Based on Manual Entry or Goal Seek"
ACE REVENUE	\$ 51,045,659	5%	\$ 53,597,942	\$ 65,000,000
ACE EXPENSES	\$ 17,715,379	-2%	\$ 17,361,072	\$ 17,715,379
ACE RATIO	0.347		0.324	0.273
ACE GOAL	0.371		0.368	0.359
# of SD's from Goal	-0.300247872		-0.556485883	-1.086541888
Score Adjustment	3.00		5.56	10.87
Academic Score	73.00		75.56	80.87



Microsoft Office  
Excel Worksheet



# The Math

		<b>Goal 0.34</b>	
	<b>Baseline</b>	<b>Expense</b>	<b>Revenue</b>
<b>Expense</b>	40,754,938	39,354,813	40,754,938
<b>Revenue</b>	115,749,451	115,749,451	119,765,757
<b>Ratio</b>	0.3521	0.3400	0.3403
<b>Change Expense</b>		-1,400,125	0
<b>Change Revenue</b>		0	4,016,306

- How can expenses be reduced?
- How can revenues be increased?



# More Math

- Considering a Coding Improvement Project
  - \$1,000,000 of Admin Expense all of which will step down to B Accounts
  - \$ 4,000,000 of additional revenue
- What will happen to ACE Ratio?

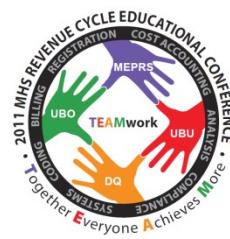
	Baseline	Post Initiative	Initiative
Expense	40,754,938	41,754,938	1,000,000
Revenue	115,749,451	119,749,451	4,000,000
Ratio	0.3521	0.3487	0.2500



## Interconnections

- Considering an Admin Project that has no impact on healthcare production or revenue.
  - \$1,000,000 of Admin Expense all of which will step down to B Accounts
  - \$ - 0 - of additional revenue
- What will happen to ACE Ratio?

	Baseline	Post Initiative	Initiative
Expense	40,754,938	41,754,938	1,000,000
Revenue	115,749,451	115,749,451	0
Ratio	0.3521	0.3607	



# Going Deeper

- Exploring your expenses
  - Root Cause
  - Data Quality Issues
- Air Force and Navy Facilities

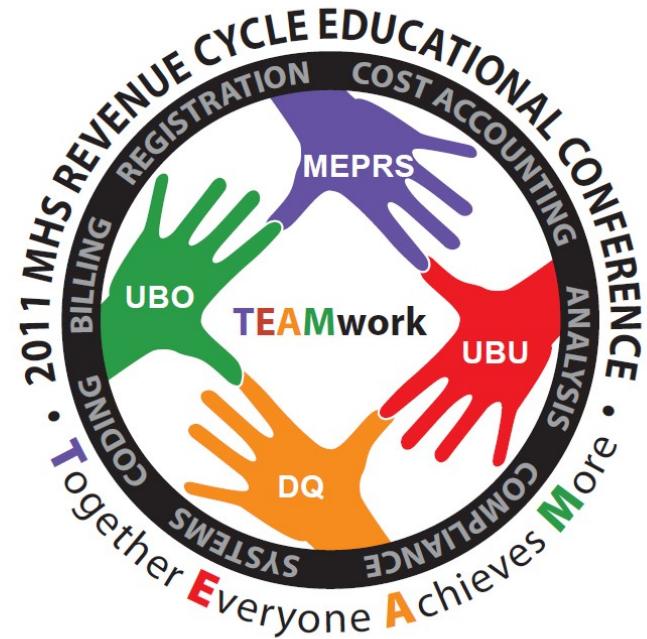


# Unit Objectives

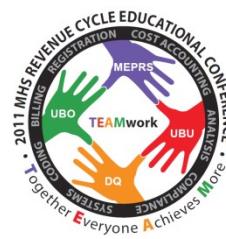
- Understand the Purpose of the ACE Metric
- Know the data sources of the Metric
- Understand the Metric's Calculation Methodology
- Understand the Metric's Scoring Methodology
- Be able to interpret the Ratio and the Score
- Understand how to improve the Metric



# Questions?

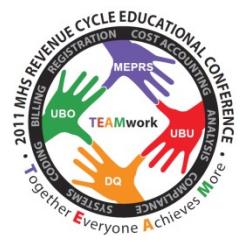


## BACKUP SLIDES



# Fort Huachuca

DP	Values		
DP	Sum of Exp	Sum of Rev	Sum of ratio
200906	7,118,022.95	6,855,586.32	1.04
200907	7,049,202.68	6,955,399.66	1.01
200908	7,049,763.59	7,098,558.42	0.99
200909	7,187,224.94	7,271,098.28	0.99
200910	7,167,712.35	7,357,439.17	0.97
200911	7,270,972.50	7,486,242.78	0.97
200912	8,238,500.16	7,645,470.54	1.08
201001	8,489,721.60	7,854,081.46	1.08
201002	8,517,671.83	8,085,641.16	1.05
201003	7,686,485.83	8,223,169.38	0.93
201004	7,661,507.74	8,384,017.27	0.91
201005	7,930,016.65	8,594,892.35	0.92
201006	7,921,700.36	8,748,883.35	0.91
201007	7,879,741.04	8,796,441.10	0.90
201008	8,203,819.66	8,770,714.29	0.94
201009	8,505,698.87	8,735,300.74	0.97
201010	8,423,893.83	8,663,393.88	0.97



# Fort Lee

	Values		
DP	Sum of Exp	Sum of Rev	Sum of ratio
200906	7,235,473.23	10,872,412.38	0.67
200907	7,431,113.36	10,910,049.33	0.68
200908	7,178,969.69	11,031,661.66	0.65
200909	7,238,928.39	11,266,174.73	0.64
200910	7,191,527.32	11,409,862.72	0.63
200911	7,411,108.62	11,606,912.23	0.64
200912	7,474,089.14	11,751,485.63	0.64
201001	7,760,600.37	12,046,980.03	0.64
201002	7,931,577.92	12,297,275.86	0.64
201003	8,102,053.86	12,513,543.92	0.65
201004	8,103,839.20	12,847,349.87	0.63
201005	8,263,953.90	12,902,253.75	0.64
201006	8,386,656.73	13,124,512.95	0.64
201007	8,482,654.44	13,241,836.16	0.64
201008	8,672,415.02	13,271,533.38	0.65
201009	8,774,386.01	13,376,204.56	0.66
201010	8,496,754.28	13,538,492.89	0.63



# Bavaria

	Values		
DP	Sum of Exp	Sum of Rev	Sum of ratio
200906	17,315,726.95	15,091,520.83	1.15
200907	17,344,842.64	15,160,017.93	1.14
200908	17,458,157.24	15,276,614.37	1.14
200909	17,644,003.19	15,499,971.89	1.14
200910	17,884,373.17	15,611,013.57	1.15
200911	17,845,388.69	15,769,281.49	1.13
200912	18,177,488.58	15,757,345.05	1.15
201001	18,014,359.80	15,760,662.71	1.14
201002	17,914,298.44	16,247,480.31	1.10
201003	18,499,136.33	16,522,954.44	1.12
201004	18,719,269.11	16,741,672.03	1.12
201005	19,129,577.03	16,960,505.72	1.13
201006	19,528,123.87	17,430,151.57	1.12
201007	19,658,090.96	17,652,213.28	1.11
201008	19,736,220.48	17,845,603.28	1.11
201009	19,893,544.09	18,132,510.76	1.10
201010	20,270,960.60	18,392,940.98	1.10



# Heidelberg

		Values		
DP	▼	Sum of Exp	Sum of Rev	Sum of ratio
200906		14,354,587.91	13,373,212.96	1.07
200907		14,065,857.07	12,573,276.45	1.12
200908		13,677,536.43	11,990,807.12	1.14
200909		13,557,626.37	11,965,036.70	1.13
200910		13,261,404.00	12,018,073.06	1.10
200911		13,121,339.28	12,056,262.86	1.09
200912		12,961,788.05	11,958,744.39	1.08
201001		12,991,384.46	11,884,976.68	1.09
201002		13,091,901.18	12,052,438.05	1.09
201003		13,225,536.09	12,099,321.30	1.09
201004		13,206,190.69	12,158,345.68	1.09
201005		13,451,968.60	12,293,444.51	1.09
201006		13,622,636.64	12,514,267.14	1.09
201007		13,719,926.25	12,643,869.45	1.09
201008		13,749,186.72	12,614,588.07	1.09
201009		13,753,898.79	12,643,167.76	1.09
201010		13,879,782.88	12,780,270.67	1.09

# Landstuhl

	Values		
DP	Sum of Exp	Sum of Rev	Sum of ratio
200906	42,907,604.52	103,598,783.25	0.41
200907	41,245,784.61	103,931,991.18	0.40
200908	39,296,429.47	105,501,864.19	0.37
200909	39,327,379.46	106,602,085.18	0.37
200910	40,358,744.17	106,709,109.56	0.38
200911	42,266,103.23	108,225,513.87	0.39
200912	43,101,433.02	110,694,485.00	0.39
201001	44,894,718.52	112,853,346.55	0.40
201002	46,409,825.96	115,351,288.43	0.40
201003	47,191,241.97	115,917,106.98	0.41
201004	48,274,892.16	117,421,932.08	0.41
201005	49,226,422.70	118,438,193.46	0.42
201006	50,482,681.54	120,978,286.39	0.42
201007	51,954,049.13	122,957,988.67	0.42
201008	52,522,231.53	123,828,947.63	0.42
201009	54,020,795.37	125,651,894.77	0.43
201010	55,333,372.00	127,989,593.70	0.43